Functional Skills Maths Level 2

Mock Test 4

Total marks: 49

Pass mark: 29 out of 49

Time allowed: 1 hour 45 minutes

Section A: Non-calculator (14 marks) | Section B: Calculator (35 marks)

You will need: pen, pencil, ruler, rubber, calculator (Section B only)

Name: _____ Date: _____

Section A — Non-Calculator

8 questions • 14 marks

Question 1 (1 mark)

Write 3,800,000 in standard form.

- A) 3.8 × 10^6
- B) 38 × 10^5
- C) 3.8 × 10^5
- D) 3.8 × 10^7

Question 2 (2 marks)

Simplify: 2(3p + q) − (p − 4q)

- A) 5p + 6q
- B) 7p + 6q
- C) 5p − 2q
- D) 5p − 3q

Question 3 (2 marks)

Laptop costs £680 plus 20% VAT. Total?

- A) £816
- B) £800
- C) £136
- D) £544

Question 4 (2 marks)

Work out: 1 3/4 + 2 2/5

- A) 4 3/20
- B) 3 6/9
- C) 3 3/20
- D) 4 7/20

Question 5 (2 marks)

Solve: 7x − 4 = 3x + 12

- A) x = 4
- B) x = 2
- C) x = 8
- D) x = 1.6

Question 6 (1 mark)

Simplify: y^5 ÷ y^3

- A) y^2
- B) y^8
- C) y^15
- D) y^2.67

Question 7 (2 marks)

Map scale 1cm : 5km. Two cities are 36km apart. Distance on map?

- A) 7.2 cm
- B) 180 cm
- C) 31 cm
- D) 0.14 cm

Question 8 (2 marks)

Estimate: √63.7

- A) 8
- B) 7
- C) 32
- D) 6

Section B — Calculator

17 questions • 35 marks

Question 9 (2 marks)

House valued at £220,000 increases 5% per year compound for 3 years. Final value?

- A) £254,678
- B) £253,000
- C) £231,000
- D) £255,750

Question 10 (2 marks)

Circular patio with radius 3.5m. Paving costs £42/m². Total cost?

- A) £1,616.35
- B) £461.81
- C) £923.63
- D) £147

Question 11 (2 marks)

Two fair dice rolled. Probability the total is 7?

- A) 1/6
- B) 1/7
- C) 7/36
- D) 5/36

Question 12 (2 marks)

TV screen 80cm wide, 60cm tall. Diagonal?

- A) 100 cm
- B) 140 cm
- C) 70 cm
- D) 10,000 cm

Question 13 (2 marks)

Frequency 15 (×6), 25 (×10), 35 (×8), 45 (×6). Mean commute (nearest min)?

- A) 29 min
- B) 30 min
- C) 35 min
- D) 25 min

Question 14 (2 marks)

TV £396 including 20% VAT. Pre-VAT price?

- A) £330
- B) £316.80
- C) £376.20
- D) £475.20

Question 15 (2 marks)

Model car scale 1:18. Real car is 4.5m long. Model length in cm?

- A) 25 cm
- B) 81 cm
- C) 2.5 cm
- D) 250 cm

Question 16 (2 marks)

Solve: $4(x - 2) \leq 20$

- A) $x \leq 7$
- B) $x \leq 5.5$
- C) $x \leq 4.5$
- D) $x \geq 7$

Question 17 (2 marks)

Cylinder radius 5cm, height 12cm. Volume? ($V = \pi r^2 h$)

- A) 942.5 cm^3
- B) 188.5 cm^3
- C) 377 cm^3
- D) 300 cm^3

Question 18 (2 marks)

Hotel survey: 37 out of 100 chose continental. Percentage?

- A) 37%
- B) 50%
- C) 25%
- D) 67.6%

Question 19 (2 marks)

Light travels at 3 × 10^8 m/s for 500 seconds. Distance covered?

- A) 1.5 × 10^11 m
- B) 1.5 × 10^10 m
- C) 15 × 10^10 m

■ D) 6 × 10^10 m

Question 20 (3 marks)

Patio costs £2,400. Option A: 8% cash discount. Option B: 25% deposit + 12 monthly payments of £165. Difference between A and B?

- A) £372
- B) £192
- C) £168
- D) £1,980

Question 21 (2 marks)

Convert 180°C to Fahrenheit using F = (C × 9/5) + 32.

- A) 356°F
- B) 324°F
- C) 212°F
- D) 392°F

Question 22 (2 marks)

Expand: (x + 3)(x − 5)

- A) $x^2 - 2x - 15$
- B) $x^2 + 2x - 15$
- C) $x^2 - 8x - 15$
- D) $x^2 - 2x + 15$

Question 23 (3 marks)

Room 5m × 4m × 2.4m. Paint all 4 walls. Each tin covers 12m² and costs £18.50. Total cost (tins must be whole)?

- A) £74
- B) £55.50
- C) £92.50
- D) £37

Question 24 (2 marks)

£1 = ¥165. Camera costs ¥49,500. Price in £?

- A) £300
- B) £330
- C) £8,167,500
- D) £3,000

Question 25 (3 marks)

Water bill: £7.80/month standing charge, £1.45/m³ water, sewerage = 90% of water charge. Used 34 m³ over 3 months. Total bill?

- A) £117.07
- B) £72.70
- C) £93.63
- D) £49.30